

Docket No.: 1454.1720

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Steffen JUNGHANNS et al.

Serial No. 10/579,407

Group Art Unit: 2617

Confirmation No. 6145

Filed: May 15, 2006

Examiner: Kathy W. Wang-Hurst

For: ESTABLISHMENT OF A TRANSCODER-FREE OPERATION CONNECTION

APPEAL BRIEF UNDER 37 C.F.R § 41.37

Mail Stop Appeal Brief-Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In a Notice of Appeal filed May 26, 2010, the Applicants appealed the Examiner's February 26, 2010 Office Action finally rejecting claims 16-31. Appellants' Brief, together with the requisite fee set forth in 37 C.F.R. § 1.17, is submitted herewith.

The Notice of Panel Decision from Pre-Appeal Brief Review mailed August 24, 2010 indicates that the time period for filing this Appeal Brief is extended to September 24, 2010. A Petition for a one-month extension of time, together with the requisite fee for same, is submitted herewith, thereby extending the period for response to October 25, 2010 (October 24, 2010 being a Sunday).

Should any additional fees be required or an overpayment of fees made, please debit or credit our Deposit Account No. 19-3935, as needed.

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I. REAL PARTY IN INTEREST (37 C.F.R. § 41.37(c)(1)(i))

The real party in interest is Siemens Aktiengesellschaft, the assignee of the application.

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. § 41.37(c)(1)(ii))

Appellant, appellant's legal representative, and the assignee do not know of any prior or pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS (37 C.F.R. § 41.37(c)(1)(iii))

Claims 16-31 have been finally rejected and are on appeal.

Claims 1-15 have been cancelled.

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IV. STATUS OF AMENDMENTS (37 C.F.R. § 41.37(c)(1)(iv))

Appellants' Pre-Appeal Brief Request for Review filed May 26, 2010 was entered for purposes of Appeal as indicated by the Notice of Panel Decision mailed August 24, 2010.

V. SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. § 41.37(c)(1)(v))

Independent claim 16 recites a method for establishing a transcoder-free operation connection between two communication terminals in a communication network (for example, see paragraphs [0006] and [0010] and Fig. 1). The method includes checking in a radio network controller (for example, RNC1 and RNC2 illustrated in Fig. 1 and RNC illustrated in Fig. 2 and discussed in paragraph [0011]), upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection (for example, see request from switching unit MSC to radio network controller RNC illustrated in Fig. 2 and discussed in paragraph [0011]), whether the at least one requested subset is supported by the radio network controller (for example, see paragraph [0011]). The method further includes, if the at least one subset of the at least one codec mode configuration is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit and a communication terminal and restricting a codec mode configuration to be used for transmission of data to the subset (for example, see Fig. 2 and the related discussion in paragraph [0011]). The method further includes signaling, from the radio network controller to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for transmission of data (for example, see Fig. 2 and the related discussion in paragraph [0011]).

Independent claim 25 recites a radio network controller for establishing a transcoder-free operation connection between two communication terminals in a communication network having a switching unit and mobile network units (for example, see paragraphs [0006] and [0010] and Figs. 1 and 3). The claimed radio network controller includes send and receive units communicating with the mobile network units (for example, see receive unit E and send unit S illustrated in Fig. 3 and the related discussion in paragraph [0012]). The claimed radio network controller further includes at least one processing unit (for example, see processing unit V illustrated in Fig. 3) checking a request sent from the switching unit relating to use of a subset of a codec mode configuration for establishment of a transcoder-free operation connection to determine whether the requested subset is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit if the subset of the codec mode configuration is supported by said radio network controller, restricting a codec mode configuration to be used for transmission of data to the subset, and signaling a message relating

to the subset of the codec mode configuration to be used for the transmission of data via said send unit to a communication terminal included among the mobile network units ((for example, see processing unit V illustrated in Fig. 3 and the related discussion in paragraphs [0011]-[0012]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi))

Claims 16-30 stand rejected under 35 USC § 103(a) as being unpatentable over "Witzel" (U.S. Patent Application Pub. No. 2007/0171841) in view of "Bachmann" (U.S. Patent No. 7,577,152).

Claim 31 stands rejected under 35 USC § 103(a) as being unpatentable over Witzel in view of Bachmann and further in view of "Twiss" (U.S. Patent Application Pub. No. 2006/0168318).

VII. ARGUMENT

A. Review of the prior art

1. U.S. Patent Application Pub. No. 2007/0171841 ("Witzel")

Witzel discloses a method for transmitting data in a telecommunications network and a device, e.g. a network node, utilizing that method, where the data transfer requires the application of algorithms for coding and/or decoding ("codec") on the data, where at least one of the network nodes provides a list of available codecs and transmits it to a further network node, where the further network node chooses from the received list and from a corresponding set of codecs available to the further network node a combination of codecs to be used when transferring said data, and where the received list not only comprises direct codecs but transcoding codecs, i.e. codecs requiring transcoding, as well.

2. U.S. Patent No. 7,577,152 ("Bachmann")

Bachmann discloses a method and apparatus for modification of a connection between a transmitting subscriber and a receiving subscriber in a communications system, which is based on data compression, within a switching center, with a data frame which arrives in the switching center and is formatted on the basis of a framing protocol being replaced independently of the length of the data frame by a new data frame formatted on the basis of the framing protocol, such that additional information can be fed into the connection without any loss of quality or time.

3. U.S. Patent App. Pub. No. 2006/0168318 ("Twiss")

Twiss discloses methods and apparatus relating to routing and caching systems for reducing traffic and the bandwidth used by decentralized peer-to-peer (P2P) file sharing networks is described. The peer-to-peer network operates over an underlying network including first and second network portions. The method includes routing a peer-to-peer message in one of said network portions with an intended destination in the other of said network portions to a gateway between peer-to-peer modes residing on said first and second network portions. The method further includes controlling transport of said message at said gateway to limit propagation of said message into said other of said network portions.

B. Claims 16-30 are patentable over the combination of Witzel and Bachmann

In the Final Office Action, the Examiner rejected claims 16-30 as unpatentable over Witzel in view of Bachmann.

It is submitted that the Examiner failed to establish a *prima facie* case of obviousness. The references to Witzel and Bachmann, alone or in combination, do not teach or suggest all the features of claims 16-30.

In general, not all network terminals in a network will always support the same codec mode and, more importantly, the same codec mode configurations (a codec mode configuration being a set of codec modes based on which the two terminals can communicate). Therefore, the two or more terminals involved must agree on a codec mode configuration. This agreed on codec mode configuration provides a set of codecs on which the two or more terminals can potentially communicate. During a communication session, the two or more terminals will then effectively agree on a codec mode for communication. Depending on outside circumstances (for example, too much bandwidth being consumed on an air interface), the two or more terminals might change the codec mode for communication. However, this change can only occur within the set of codec modes that were previously agreed upon (the agreed upon codec mode configuration). Thus, when a common codec mode configuration is available to all of the two or more terminals, transcoder-free operation (TrFO) or tandem free operation (TFO) is possible. Of course, if the two or more terminals do not have a common codec mode configuration that is supported by each of them, each of the terminals will choose a different codec mode configuration, making TrFO or TFO impossible.

Claim 16 provides for reducing the need for transcoding in a communication session between at least two terminals (for example, an originating terminal and a terminating terminal). To this end, claim 16 provides for establishing a transcoder-free operation connection between terminals at the radio network controller and not at each terminal or network node itself. Moreover, the radio network controller determines and establishes a transcoder-free operation connection based upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration. At least these features of claim 1 are not taught by Witzel or Bachmann.

As a non-limiting example, claim 16 provides a method as described in paragraph [0011] of the specification. The method provides for receiving, by a radio network controller (RNC), a request, from a switching unit, relating to the use of a subset (for example, a/b) of a codec mode configuration (for example, a/b/c). Next, the method provides for checking, by the radio network controller (RNC), whether the requested codecs a/b form a subset of a supported configuration

(for example, a/b/c) and, if the subset is supported by the RNC, establishing a transcoder-free operation connection to the switching unit and a communication terminal. The RNC then signals to the switching unit that it is alright to go ahead with codecs a/b. However, to the terminal, via the air interface, the RNC can only signal a certain configuration a/b/c. This leads to a mismatch because the terminal is now allowed to use codec c, but the switching unit does not support codec c. Therefore, the method of claim 16 performs an additional step of restricting the codec mode configuration to the subset by signaling from the RNC to the terminal.

In contrast to claim 16, Witzel does not provide for a radio network controller to receive a request from a switching unit relating to use of at least one subset of at least one codec mode configuration and, as a result, does not provide for the radio network controller itself to establish a transcoder-free operation connection. To begin with, the Examiner has not indicated where Witzel discloses that the RNC (for example, RNC 40 in Fig. 7) receives a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection. Of course, this is likely because Witzel does not teach establishment of a transcoder-free operation connection at the level of the RNC.

Instead, Witzel discloses a node-by-node method of establishing a connection between an originating leg (for example, originating leg 41 in Fig. 7) and a terminating leg (for example, terminating leg 43 in Fig. 7), wherein each network node along a communication path must determine transcoding capabilities between each of the other network nodes. In fact, the example in Witzel clearly illustrates this inferior node-by-node method (see paragraph [0017] and Fig. 7). To begin with, the originating network node (MSC 45) must generate an initial supported codec list, where the direct codecs are determined by the intersection of the supported codecs of an originating mobile terminal 46 and the capabilities of the first originating network nodes 45 and 47. The transcoding capabilities are determined by a first originating MGW (media gateway) 47, according to a first originating codec list A1. A second originating network node 48 receives the initial supported codec list from the first origination network node 45. Thereafter, the transcoding capabilities are again determined according to a selected second originating MGW 49 (for example, according to a second terminating codec list A2). As such, each of the originating network nodes 45 and 48 in the originating leg 41 must receive supported codec lists from a previous node in order to determine the transcoding capabilities (for example, by MGWs 47 and 49). As such, each network node in Witzel agrees upon codec types or configurations, or both, that can be used for coding or decoding, or both, if at least one

transcoding is implemented along the communication path. Therefore, each network node needs to analyze its current list of codec types or configuration, or both, prior to the communication and compare its list to the list of any other network node involved in the communication path. The procedure may lead to at least one transcoding step when a network node does not support a selected codec for the communication. More specifically, this situation may occur when using media gateways from different suppliers. Witzel does not disclose the use of the RNC 40 in establishing transcoder-free connection between the nodes of the originating leg 41 and the nodes of the terminating leg 43. Thus, it follows that Witzel also cannot teach signaling, from the radio network controller to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for transmission of data, as also recited in claim 16.

Claim 16 eliminates the need for the node-by-node processing disclosed in Witzel by providing a method whereby the establishment of a transcoder-free operation connection is carried out at the radio network controller.

The Examiner, at pages 3 and 5 of the final Office Action, acknowledges that Witzel does not disclose the features of the claimed radio network controller (RNC) and establishing a transcoder-free operation connection at the level of the RNC.

Thus, Witzel does not discuss or suggest:

checking in a radio network controller, upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection, whether the at least one requested subset is supported by the radio network controller;

if the at least one subset of the at least one codec mode configuration is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit and a communication terminal and restricting a codec mode configuration to be used for transmission of data to the subset; and

signaling, from the radio network controller to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for transmission of data

as recited in claim 16, for example.

However, the Examiner attempts to make up for this deficiency in Witzel with Bachmann. It is respectfully submitted that Bachmann fails to make up for the deficiencies in Witzel acknowledged by the Examiner. Bachmann, as relied on by the Examiner at col. 1, lines 35-58, merely discloses a conventional RNC and does not specifically disclose the features of the RNC recited in claim 16, for example. More specifically, Bachmann merely discloses an RNC that negotiates a set of AMR modes with a switching center before a UMTS speech connection is set up.

In contrast to claim 16, the RNC of Bachmann does not perform the above-discussed features and the Examiner has not explained why it would have been obvious to one of ordinary skill in the art to modify the RNC disclosed in Bachmann in order to achieve the features of the RNC recited in claim 16, for example.

Since Witzel and Bachmann, alone or in combination, do not discuss or suggest all of the features of claim 16, it is respectfully submitted that claim 16 patentably distinguishes over Witzel and Bachmann.

Claims 17-24 depend either directly or indirectly from claim 16, and include all the features of claim 16, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 17-24 patentably distinguish over the references relied upon for at least the reasons noted above.

Independent claim 25 recites “at least one processing unit checking a request sent from the switching unit relating to use of a subset of a codec mode configuration for establishment of a transcoder-free operation connection to determine whether the requested subset is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit if the subset of the codec mode configuration is supported by said radio network controller, restricting a codec mode configuration to be used for transmission of data to the subset, and signaling a message relating to the subset of the codec mode configuration to be used for the transmission of data via said send unit to a communication terminal included among the mobile network units.”

Thus, for at least the reasons discussed above with respect to claim 16, it is submitted that Witzel and Bachmann, alone or in combination, do not discuss or suggest all of the features of claim 25. Thus, it is respectfully submitted that claim 25 patentably distinguishes over Witzel

and Bachmann.

Claims 26-30 depend either directly or indirectly from claim 25, and include all the features of claim 25, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 26-30 patentably distinguish over the references relied upon for at least the reasons noted above.

C. Claim 31 is patentable over the combination of Witzel and Bachmann and Twiss

For at least the reasons discussed above, independent claim 16 patentably distinguishes over the combination of Witzel and Bachmann. Twiss fails to make up for the deficiencies in the combination of Witzel and Bachmann with respect to claim 16, so that claim 16 patentably distinguishes over the combination of Witzel and Bachmann and Twiss. Thus, claim 31, which depends from claim 16, also patentably distinguishes over the combination of Witzel and Bachmann and Twiss.

D. CONCLUSION

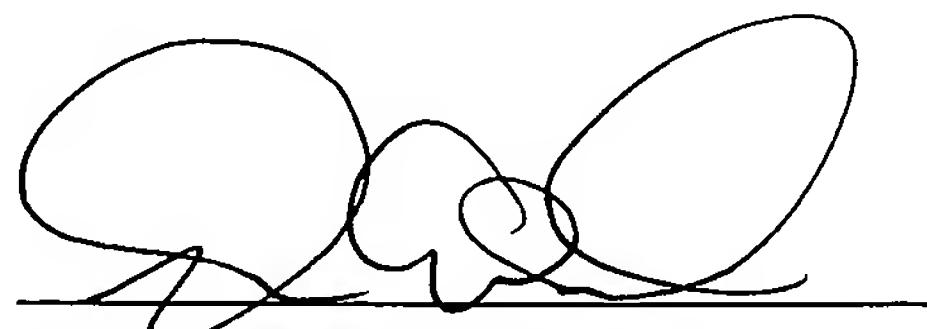
In summary, Applicants submit that claims 16-31 patentably distinguish over the prior art.

Reversal of the Examiner's rejections is respectfully requested.

Respectfully submitted,

STAAS & HALSEY LLP

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VIII. CLAIMS APPENDIX (37 C.F.R. § 41.37(c)(1)(viii))

1-15. (cancelled)

16. (previously presented) A method for establishing a transcoder-free operation connection between two communication terminals in a communication network, comprising:
 - checking in a radio network controller, upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection, whether the at least one requested subset is supported by the radio network controller;
 - if the at least one subset of the at least one codec mode configuration is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit and a communication terminal and restricting a codec mode configuration to be used for transmission of data to the subset; and
 - signaling, from the radio network controller to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for transmission of data.
17. (previously presented) A method according to claim 16, wherein at least a part of at least one message relating to the at least one codec mode configuration to be used with at least two codec modes is signaled from the radio network controller to the communication terminal for the transmission of data in an uplink direction.
18. (previously presented) A method according to claim 17, further comprising signaling from the radio network controller to the communication terminal at least a further part of at least one message relating to the at least one subset of the at least one codec mode configuration to be used for the transmission of data in the uplink direction.
19. (previously presented) A method according to claim 18, wherein the radio network controller supports all subsets of a supported codec mode configuration.

20. (previously presented) A method according to claim 19, wherein the transcoder-free operation connection is established from the radio network controller to the communication terminal using a codec mode configuration supported by the radio network controller.

21. (previously presented) A method according to claim 20, wherein the codec mode configuration represents a combination of at least two codec modes.

22. (previously presented) A method according to claim 21, wherein the communication network is a cellular mobile radio network.

23. (previously presented) A method according to claim 22, wherein a radio resource control signaling is used by the radio network controller for signaling to the communication terminal.

24. (previously presented) A method according to claim 23, wherein a mobile radio terminal, mobile computer and/or mobile organizer is used as the communication terminal.

25. (previously presented) A radio network controller for establishing a transcoder-free operation connection between two communication terminals in a communication network having a switching unit and mobile network units, comprising:

send and receive units communicating with the mobile network units; and
at least one processing unit checking a request sent from the switching unit relating to use of a subset of a codec mode configuration for establishment of a transcoder-free operation connection to determine whether the requested subset is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit if the subset of the codec mode configuration is supported by said radio network controller, restricting a codec mode configuration to be used for transmission of data to the subset, and signaling a message relating to the subset of the codec mode configuration to be used for the transmission of data via said send unit to a communication terminal included among the mobile network units.

26. (previously presented) A radio network controller according to claim 25, wherein said radio network controller signals at least a part of at least one message relating to the codec mode configuration to be used with at least two codec modes for the transmission of data in an uplink direction to the communication terminal.

27. (previously presented) A radio network controller according to claim 26, wherein said radio network controller signals at least a further part of at least one message relating to the at least one subset of the codec mode configuration to be used for the transmission of data in the uplink direction to the communication terminal.

28. (previously presented) A radio network controller according to claim 27, wherein the communication network is a cellular mobile radio network.

29. (previously presented) A radio network controller according to claim 28, wherein the mobile network units include at least one of a mobile radio terminal, a mobile computer and a mobile organizer.

30. (previously presented) A device according to claim 29, wherein the codec mode configuration is a combination of at least two codec modes.

31. (previously presented) A method according to claim 16, wherein a Transport Combination Control Message (TCCM) is used by the radio network controller for signaling to the communication terminal.

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IX. EVIDENCE APPENDIX (37 C.F.R. § 41.37(c)(1)(ix))

Not applicable

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X. RELATED PROCEEDING APPENDIX (37 C.F.R. § 41.37(c)(1)(x))

Not applicable